



(11)

**EP 2 842 556 A3**

(12)

**EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**05.08.2015 Bulletin 2015/32**

(51) Int Cl.:  
**A61K 31/201** <sup>(2006.01)</sup> **A61K 31/231** <sup>(2006.01)</sup>  
**A23L 1/30** <sup>(2006.01)</sup> **A61P 25/28** <sup>(2006.01)</sup>  
**A61P 25/00** <sup>(2006.01)</sup> **A61P 29/00** <sup>(2006.01)</sup>

(43) Date of publication A2:  
**04.03.2015 Bulletin 2015/10**

(21) Application number: **14195436.2**

(22) Date of filing: **04.12.2009**

(84) Designated Contracting States:  
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR  
HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL  
PT RO SE SI SK SM TR**

(30) Priority: **09.12.2008 ES 200803480**

(62) Document number(s) of the earlier application(s) in  
accordance with Art. 76 EPC:  
**09831504.7 / 2 374 453**

(71) Applicant: **Universitat de les Illes Balears  
07122 Palma de Mallorca (ES)**

(72) Inventors:  
• **Escribá Ruiz, Pablo Vicente**  
**07004 Illes Balears (ES)**  
• **Busquets Xaubet, Xavier**  
**07122 Illes Balears (ES)**  
• **Taylor Green, Julián**  
**45071 Toledo (ES)**  
• **Ávila Martín, Gerardo**  
**45071 Toledo (ES)**

(74) Representative: **Illescas, Manuel**  
**Manuel Illescas y Asociados, S.L. (MIA)**  
**Príncipe de Vergara nº 197**  
**Oficina 1ªA**  
**28002 Madrid (ES)**

(54) **Alpha-derivatives of cis-monounsaturated fatty acids for use as medicines**

(57) **Alpha-derivatives of cis-monounsaturated fatty acids for use as medicines.** The present invention refers to pharmaceutically acceptable compounds of Formula I, their salts and derivatives, where (a) and (b) can take any value between 0 and 14, (X) can be substituted by any atom or group of atoms with an atomic/molecular

weight between 4 and 200 Da and (R) can be substituted by any atom or group of atoms with an atomic/molecular weight between 1 and 200 Da, for use as medicines in the induction of neurodegeneration, treatment of nerve fibre lesions and treatment of pain.

**EP 2 842 556 A3**



## EUROPEAN SEARCH REPORT

Application Number  
EP 14 19 5436

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 1 435 235 A1 (UNIV ILLES BALEARS [ES]) 7 July 2004 (2004-07-07)	1-5,9	INV. A61K31/201 A61K31/231 A23L1/30 A61P25/28 A61P25/00 A61P29/00
Y	* abstract; claims 5-8; examples *	1-9	
X	US 5 208 260 A (CORDI ALEX A [US] ET AL) 4 May 1993 (1993-05-04) * abstract * * column 1, line 14 - line 23 * * page 7, line 54 - line 62 * * column 11, line 43 - line 63 * * column 12, line 47 - line 48; claims *	1,5,6,9	
X	WO 01/35939 A2 (UNIV SUNDERLAND [GB]; LEES GEORGE [GB]) 25 May 2001 (2001-05-25) * abstract * * page 6, line 31 - page 8, line 24 * * page 9, line 21 - line 22; claim 17 *	1-5,9	
A	US 5 856 537 A (LERNER RICHARD A [US] ET AL) 5 January 1999 (1999-01-05) * abstract * * column 5, line 5 - line 15 * * column 15, line 52 *	2-4	
Y	WO 2007/021061 A1 (UNIV KYUNG HEE UNIV IND COOP [KR]; KIM HO CHOL [KR]; LEE DAE HEE [KR];) 22 February 2007 (2007-02-22) * abstract; claims; examples *	1-9	<div>TECHNICAL FIELDS SEARCHED (IPC)</div> <div>A61K</div>
<div>The present search report has been drawn up for all claims</div>			
Place of search The Hague		Date of completion of the search 6 March 2015	Examiner Hoff, Philippe
<div>CATEGORY OF CITED DOCUMENTS</div> <div> X : particularly relevant if taken alone  Y : particularly relevant if combined with another document of the same category  A : technological background  O : non-written disclosure  P : intermediate document  T : theory or principle underlying the invention  E : earlier patent document, but published on, or after the filing date  D : document cited in the application  L : document cited for other reasons  &amp; : member of the same patent family, corresponding document </div>			



## EUROPEAN SEARCH REPORT

Application Number  
EP 14 19 5436

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	CHEN WELLIAM ET AL: "Synergistic inhibition of calcification of porcine aortic root with preincubation in FeCl <sub>3</sub> and -alpha--amino oleic acid in a rat subdermal model", JOURNAL OF BIOMEDICAL MATERIALS RESEARCH, WILEY, NEW YORK, NY, US, vol. 38, no. 1, 1 June 1997 (1997-06-01), pages 43-48, XP008150770, ISSN: 0021-9304, DOI: 10.1002/(SICI)1097-4636(199721)38:1<43::AID-JBM6>3.0.CO;2-H [retrieved on 1998-12-06] * the whole document *	9	
X	WO 2004/080468 A1 (YU RUEY J [US]; SCOTT EUGENE J VAN [US]) 23 September 2004 (2004-09-23) * abstract * * page 10, paragraph 31; claims 1-4 *	9	
			TECHNICAL FIELDS SEARCHED (IPC)
<p><del>The present search report has been drawn up for all claims</del></p>			
Place of search		Date of completion of the search	Examiner
The Hague		6 March 2015	Hoff, Philippe
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone  Y : particularly relevant if combined with another document of the same category  A : technological background  O : non-written disclosure  P : intermediate document</p> <p>T : theory or principle underlying the invention  E : earlier patent document, but published on, or after the filing date  D : document cited in the application  L : document cited for other reasons  .....  &amp; : member of the same patent family, corresponding document</p>			

EPO FORM 1503 03.82 (P04C01)



Application Number

EP 14 19 5436

**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

**LACK OF UNITY OF INVENTION**

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-9

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



**LACK OF UNITY OF INVENTION  
SHEET B**

Application Number  
EP 14 19 5436

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-9

Compound of formula I for use in the induction of neuroregeneration, prevention and/or treatment of nerve fibre lesions, prevention and/or treatment of pain.

---

2. claim: 10

Pharmaceutical or nutraceutical composition comprising OHOD and/or Na-OHOD and albumin

---

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 14 19 5436

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

06-03-2015

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 1435235	A1	07-07-2004	AT 322261 T 15-04-2006
		BR 0213165 A 14-09-2004	
		CA 2463348 A1 17-04-2003	
		CN 1688302 A 26-10-2005	
		CN 101259121 A 10-09-2008	
		CN 101259122 A 10-09-2008	
		DE 60210488 T2 14-12-2006	
		EP 1435235 A1 07-07-2004	
		ES 2186576 A1 01-05-2003	
		ES 2261752 T3 16-11-2006	
		JP 4737931 B2 03-08-2011	
		JP 2005527479 A 15-09-2005	
		MX PA04003255 A 25-01-2005	
		PT 1435235 E 31-08-2006	
		RU 2310445 C2 20-11-2007	
		US 2005014831 A1 20-01-2005	
		US 2009082446 A1 26-03-2009	
		US 2011136906 A1 09-06-2011	
		WO 03030891 A1 17-04-2003	
US 5208260	A	04-05-1993	NONE
WO 0135939	A2	25-05-2001	AU 1529501 A 30-05-2001
			WO 0135939 A2 25-05-2001
US 5856537	A	05-01-1999	AT 263751 T 15-04-2004
		AU 734477 B2 14-06-2001	
		AU 3508297 A 14-01-1998	
		CN 1228764 A 15-09-1999	
		CN 101156840 A 09-04-2008	
		DE 69728537 D1 13-05-2004	
		DE 69728537 T2 24-03-2005	
		EP 0910561 A1 28-04-1999	
		JP 4184435 B2 19-11-2008	
		JP 2000513361 A 10-10-2000	
		US 5856537 A 05-01-1999	
		US 6096784 A 01-08-2000	
		WO 9749667 A1 31-12-1997	
WO 2007021061	A1	22-02-2007	CN 101242823 A 13-08-2008
			EP 1915142 A1 30-04-2008
			JP 4993515 B2 08-08-2012
			JP 2009504725 A 05-02-2009
			US 2008227860 A1 18-09-2008
			WO 2007021061 A1 22-02-2007

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.

EP 14 19 5436

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

06-03-2015

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2004080468 A1	23-09-2004	AU 2004220597 A1	23-09-2004
		CA 2517782 A1	23-09-2004
		EP 1601366 A1	07-12-2005
		US 2004214215 A1	28-10-2004
		US 2008032937 A1	07-02-2008
		WO 2004080468 A1	23-09-2004
-----			